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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/081,109	02/25/2002	Shinsuke Sakamoto	4329.2270-01	4805

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EXAMINER
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LEE, EUGENE

ART UNIT	PAPER NUMBER
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2815

DATE MAILED: 05/02/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/081,109

Applicant(s)

SAKAMOTO ET AL.

Examiner

Eugene Lee

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 February 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,6-8,10 and 15-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,6-8,10 and 15-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 19 February 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 6 thru 8, 10, and 15 thru 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In the last two lines of claim 1, the applicant states the limitation “a third wiring arranged in an outermost peripheral region of the chip and serving to connect the other end of the first wiring to an I/O slot different from the first I/O slot”, however, this limitation is not clearly shown in the applicant’s invention. In FIG. 1, the applicant shows the third wiring 24, however, this third wiring does not connect the other end of the first wiring 14. The first wiring ends in via 15 and does not connect the third wiring 24.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Insofar as definite, claims 1, 6 thru 8, 10, and 15 thru 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over admitted prior art in view of Janai et al. ‘967. The admitted prior art discloses (see, for example, FIG. 4) a semiconductor integrated circuit device

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comprising a first I/O slot 11a, second I/O slot 11b, first pad 12a, second pad 12b, first wiring 14, and second wiring 17. The admitted prior art does not disclose a third wiring and a fourth wiring. However, Janai shows (see, for example, FIG. 1A) an integrated circuit device comprising horizontal metal strips M1 and vertical metal strips (third and fourth wiring) M2. The metal strips are formed on different levels by way of vias. This arrangement accommodates a large number of interconnecting lines and allows specific routing interconnections to be made. See, for example, columns 1 and 2. Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to include the vertical metal strips of Janai's invention in order to customize a semiconductor device (without changing the basic metal wiring pattern) without increasing its general complexity.

### ***Response to Arguments***

5. Applicant's arguments with respect to claims 1, 6-8, 10, and 15-20 have been considered but are moot in view of the new ground(s) of rejection.

Regarding applicant's argument on page 6, second and third paragraph that Applicant's admitted prior art does not disclose or suggest at least a first pad "arranged on a wiring level different from said first I/O slot and arranged above the first I/O slot", this argument is not persuasive. Looking at FIG. 4 of the Applicant's admitted prior art, the first pad 12a is clearly shown above the first I/O slot 11a. Also on page 3, lines 1-3 of the specification, the applicant clearly states that "Pads 12a, 12b are arranged above the I/O slot 11a among these I/O slots 11a to 11d".

Regarding applicant's argument on page 7 that Janai does not disclose a first pad being "arranged on a wiring level different from said first I/O slot and arranged above the first I/O slot", this argument is not persuasive. The Applicant's admitted prior art already discloses a first pad being arranged on a wiring level different from said first I/O slot and arranged above the first I/O slot. The Janai reference simply states that metal strips can be used to form metal links between interconnecting lines so that customized routing can occur. Therefore, since the Applicant's admitted prior art also has interconnecting lines (first wiring 14 and second wiring 17), it would have been obvious to one of ordinary skill in the art at the time of invention to also use metal links in the Applicant's admitted prior art in order to customize a semiconductor device without changing its general complexity.

### *Conclusion*

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event.

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

### **INFORMATION ON HOW TO CONTACT THE USPTO**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eugene Lee whose telephone number is 703-305-5695. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie C. Lee can be reached on 703-308-1690. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Eugene Lee  
April 30, 2003



**EDDIE LEE**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2800**